

A LUMBERMAN'S VIEWS ON RECIPROCITY.

Speaking upon business principles, says the *Journal*, "Not as a politician, but as a lumberman of long standing," Ottawa's senior member, W. G. Perley, made a valuable contribution to the debate on the unrestricted reciprocity resolution in the small hours on Saturday morning. The speech was not too lengthy, occupying only about forty-five minutes in delivering, but it was brimful of information bearing upon the point at issue as it affects the lumbermen, for whom, perhaps no one is better qualified to speak than is Mr. Perley. Notwithstanding the unreasonable hour at which by force of circumstances he had to speak, the practical common sense of his remarks and his strict adherence to the subject, won for the speech fair attention. This is more than could be said for any other speech delivered during the riotous closing hours of the debate.

To show how uncalled for had been the sympathy expressed for the duty-burdened lumberman or—exporter of lumber—during this debate, Mr. Perley pointed out that all the products of the forest that have been subject to duty on entering the States since the abrogation of the treaty of 1854, are for the future to be admitted free without any such sacrifice as Canada is asking to make, as a bill with that object is now before congress, with every likelihood of becoming law. And he conclusively showed in addition that even now the duty on lumber is paid not by the Canadian producer, but by the United States purchaser. These were his words:

WHO PAID THE DUTY?

I do not know that there is any settled principle; but the dealers in lumber and manufacturers in the United States, without any exception, contend that they pay the duty. They come here and buy lumber free on board and pay the duty on it. I do not intend to argue the question, but I will state my experience in the application of the treaty of 1854, and leave the hon. members to draw their own conclusion as to which contention is right. Notice for the abrogation of the treaty of 1854 was given in 1864, and the abrogation took place on the 1st of July, 1866, when a duty of 20 per cent. was imposed on pine lumber. At that time my firm was engaged in the sawing of lumber, and at the time this resolution was introduced my impression was that we did not experience any difference in the price of our lumber from the imposition of that duty. But to verify my impression I had an examination made of the books of my firm, and I found that from 1864 to 1867 there was no perceptible change in the price of our products. If anything, the prices increased in the latter year to some extent. But this instance goes to show conclusively that at that time we certainly did not pay the duty that was imposed on lumber by the United States."

ONE POSSIBLE RECIPROCITY BOON.

While showing the fallacy of the opposition contentions as to the benefits to be derived by the lumbermen, Mr. Perley on the other hand pointed out a benefit not touched upon in this debate which they would receive by the removal of the duties, however brought about. He said "the only advantage, I contend, which we can obtain by the removal of those duties, is to enable us to cut and saw an inferior quality of logs, and perhaps, in many cases, trees that have been burnt and killed a long time ago might be cut and used for boxes, and so on, which might be worked here and exported to the United States, if there were no duties to pay." He pointed out that the mere earnings of the laboring classes and the payment of Crown dues, with even only a small profit to the millmen, would be a great boon for the country to get from such timber. The advantages thus in store for the lumbermen Mr. Perley claimed had been offset by the action of the Government of Ontario and Quebec in materially increasing lately the Crown dues upon timber. He contended that they were unwarranted in making such a large increase, and that so far as trade was concerned in the Ottawa valley, there was no reason for increasing the Crown charges as they have done, except in anticipation of the removal of the duties upon the products of the forests going into the United States. According to the conditions of the lumber trade in the Ottawa valley, those charges could not be paid by the lumbermen at the present time, otherwise it being a well-known fact to all practical lumbermen and sawmill men, that a low grade of lumber as produced now cannot be exported to the United States under that system of duties, without a loss to the men who saw the logs.

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Not only did Mr. Perley contend that no such scheme as unrestricted reciprocity was called for in the interest of the lumber trade, but he illustrated how that trade had been built up by the National Policy which it was now sought to supplant. "At the inauguration of our present fiscal policy," he said, "it was contended on what we considered reasonable grounds, that that trade would have to suffer, under the National Policy, for the benefit of other industries. It was contended by some members of my own firm and by my neigh-

bors that we would have to pay increased prices for the different articles from our own manufacturers at rates fully as low as those we would have to pay the foreign manufacturer. What was the fact? The articles of clothing and the vast amount of goods that enter into shanty supplies were never advanced in price, and to-day we can get them cheaper than ever we could get them before.

"An enormous increase in the home consumption had taken place, he said, since 1880. As a sample he cited statistics gathered in Montreal, where in 1887 the lumber consumed amounted to 20% of the cut of all the mills in Ottawa and its immediate neighborhood. In that city," he said, "the estimated local consumption for 1880 was from 45,000,000 to 50,000,000 feet, while in 1887 it ran up to 120,500,000 feet. I look upon this as one of the important elements of the prosperity and success which this National Policy so-called, has given to this country. And if we were able to obtain the statistics of other cities, I am sure we would be able to show the people and hon. gentlemen opposite, who are contending that we should throw overboard everything we have achieved, that upon that basis we have developed our trade and given our own people employment in the manufacturing interest."

A PARTING MORAL.

Before concluding, he administered a rebuke to the "murky-fingered painters of blackness and despair," as Mr. Foster calls the pessimists on the Opposition side. "I think," said Mr. Perley, "that if we can get over this attempt to disturb the progress and development of this country, and if the hon. gentlemen in this House would take some other means of criticising the action of the governing party, we would do far better and get along more successfully in developing the resources of the country. It seems to me that this feeling of enmity against the successful party and this complaining that has been going on since I have known anything about Parliament, and this raising of the cry that we are going to ruin, are calculated to retard the progress of the country, and to embarrass the Government from carrying on measures for its welfare. I may be criticised for expressing my views on this point, being a young member of the House, but I may say that I consider this resolution uncalled for in any sense of the word, so far as the lumber trade is concerned, and I can see no ground upon which they can justify themselves in introducing a resolution of that kind."

The whole speech was terse and practical, and made a marked impression on the members of the House who heard it.

Purchasing Belts.

We find the following in a treatise on belting recently issued by the Page Belting Co.: Having properly arranged the machinery for the reception of the belts, the next thing to be determined is the length and width of the belts.

When it is not convenient to measure with the tape line the following rule will be found of service: Add the diameters of the pulleys together, divide the result by two, and multiply the quotient by 3.14. Add the product to twice the distance between the centres of the shafts, and you have the length required, substantially.

The width of the belt needed depends on three conditions: 1st, the tension of the belt; 2nd the size of the smaller pulley and the proportion of the surface touched by the belt; 3rd, the speed of the belt.

The average strain under which leather will break has been found by many experiments with various good tannages to be 3,200 pounds per square inch of cross section. A very nice quality of leather will sustain a somewhat greater strain. In use on the pulleys, belts should not be subjected to a greater strain than one-eleventh their tensile strength, or about 290 pounds to the square inch of cross section. This will be 55 pounds average strain for every inch in width of single belt three-sixteenths inch thick. The strain allowed for all widths of belting—single, light, double and heavy double—is in direct proportion to the thickness of the belt. This is the safe limit; for, if a greater strain is attempted, the belt is liable to be overworked, in which case the result will be an undue amount of stretching, tearing out at the lace or hook holes and damage to the joints.

When the belt is in motion the strain on the working side will be greater than on the slack side; and the average strain will be one-half the aggregate of both sides.

The working adhesion of a belt to the pulley will be in proportion both to the number of square inches of belt contact with the surface of the smaller pulley, also to the arc of the circumference of the pulley touched by the belt. This adhesion forms the basis of all right calculation in ascertaining the width of the belt necessary to transmit a given horse-power. A single belt, three-sixteenths inch thick, subjected to the strain we have given as a safe rule—55 pound per square inch in width—when touching one-half of the circumference of a turned iron pulley, will adhere one-half pound per square inch of the surface contact; while if it be a leather covered pulley, the belt will adhere two-

thirds of a pound per square inch of contact. If the belt touches but one quarter of the circumference of the pulley, the adhesion is only one quarter pound to the square inch of contact with the iron pulley, and one-third pound per square inch on the leather covered pulley.

The adhesion one inch in width if the belt has on the pulley is the number of pounds which each inch in width of belt is capable of raising or transmitting. Multiplying this by the velocity of the belt in feet per minute will give the total number of pounds each inch in width will raise to transmit one foot per minute. Now multiply 33,000, the number of pounds raised by one-horse power one foot per minute, by the horse power to be transmitted, and divide this product by the number of pounds which one inch in width will raise or transmit one foot per minute, and the quotient will be the width of the belt required.

A Log Runner's Appeal.

As illustrative of the kind hearts that beat beneath a rough exterior, says a Michigan paper, let us relate a little incident that occurred on the Grand Rapids and Indiana railroad last Monday. At Grand Rapids there got on the train going north a typical lumberman or log runner. He was clad in a checkered costume so familiar to us all, and was filled to overflowing with Valley City bug juice. On the train his offensive familiarity and ribald songs and jokes made him a nuisance to all in the same car. The train men, however, succeeded in curbing his frolicsome spirits until Big Rapids was reached. Arriving at the latter place, a young fellow boarded the car whose appearance at once excited the sympathy of all. His face, at one time handsome, was thin and haggard, his form, once robust was sadly emaciated, and where his strong right arm should have been was an empty sleeve.

Immediately upon entering the car door, our friend, the lumberman, saw him and jumping to his feet, he rushed at him with, "Zhay, Jimmie, zat you? Where you been?" and looking at Jimmie's empty sleeve, big tears gathered in his eyes and began to trickle down his cheek as he mournfully ejaculated, "too bad; too bad." Then, hastily drawing the back of his hand over his eyes, as if ashamed of a little honest emotion, he grasped the back of a car seat to steady himself, and turning to a car full of passengers said:

"Say, boys, I am nothing but a poor devil of a lumberman, and I am pretty drunk, but here is a poor fellow who is worse off. He lost his arm while breaking a jam on the Muskegon river, he has been in the hospital for six weeks. He has an aged mother, God bless her, who is entirely depending on him for support. When I went to Grand Rapids last week I had \$140 in my pocket, now I have only \$6, but here goes a 'V', and he dropped a shining gold piece into his hat. His example was infectious, and after taking a tour through the car his hat must have contained nearly \$100. This he turned over to his friend, who returned a few broken words of thanks, and together they left the train at Upper Big Rapids.

A passenger of a suspicious turn of mind thought the business looked a little fishy, and followed the pair from the train and around a lumber pile, where, unseen himself, he saw the one-armed man take off his coat and vest and from a sack made on purpose withdrew his lost arm, and then two of the slickest confidence men in Michigan meandered down town chuckling over the gullibility of the human race.

The Toothpick Business.

"Are you aware of the extent of the toothpick business in Maine?" Mr. J. C. Bridgman, who represents the National Toothpick Association, asked a representative of the *Portland Press* the other day. "That seems to be a pretty big name for small business, I suppose you think," he continued. "But you will be surprised when I tell you that our association have contracted for enough toothpicks to be made in Maine the coming year to load a train of fifty cars with nothing but toothpicks. We shall take out of Maine before next June five thousand million toothpicks. A pretty fair sized wood lot, you see will be slit up to go into the mouths and vest pockets of millions of Americans. Maine furnishes the larger portion of all the toothpicks used in the country. Our association controls the trade. It is something like the Standard Oil Trust, the Cotton Seed Oil Trust, and the lately formed Rubber Trust. It regulates the price and output of toothpicks as the big trusts regulate the price and output of oil or rubber goods. We have not adopted the name of Toothpick Trust yet, however. We have a mill at Belmont, N.Y., Harbor Springs, Mich., and Fond du Lac, Wis. Besides these, all our mills are in Maine; one at Strong, one at Farmington, one at Canton and two at Dixfield. There is a small mill at Mechanic Falls, also, but it has not joined our association. In Massachusetts, also, there is one small mill not in the association. So you see Maine is the great centre of the industry of toothpick making."